



SPU-005

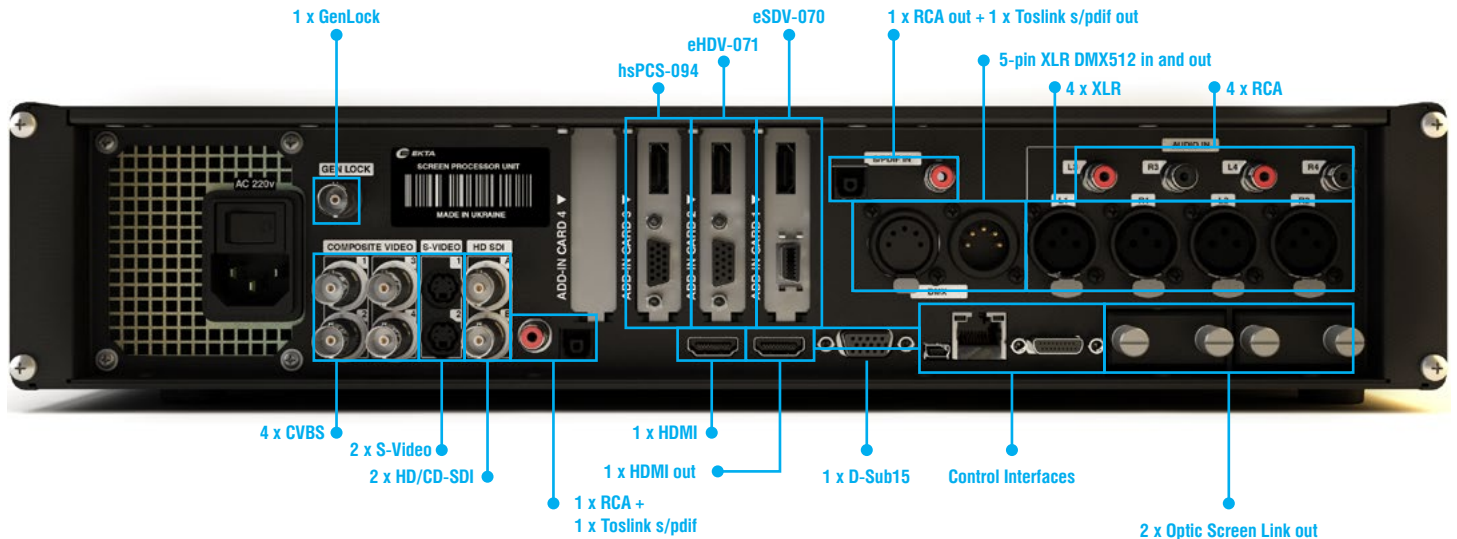
Multifomat Screen Processor Unit

ERMAC three-level software architecture has revolutionised video processing technology for large-scale LED displays and visualisation equipment, combining three different products into a single state-of-the-art solution.

Its versatile design supports all current EKTA display models, including FrameLED, BladeLED and WOWFloor product lines. The new SPU-005 processor provides the ultimate solution for controlling all EKTA's LED solutions.

FEATURES

- Motherboard and four Add-In-Cards (AiC) 19" rack mounting case
- Five image channels (one motherboard (MB) & four AiC with flexible configurations of new HDMI, 3G SDI standards)
- Five simultaneous image windows with fader and cross-fader between them
- True HD – 10 Bit processing
- 18 bit processing for LED corrections, screen brightness adjustment, gamma and color temperature control
- Three control interfaces - USB-2.0, Ethernet (UDP) and stand-alone (embedded ARM9)
- Up to 16 various pixel pitch LED screen devices or digital panels in the chain
- Two Fibre Optic (FO) and one HDMI outputs with frame rates of 50; 60; 75; 100; 120 Hz
- 3D ready on board (optional)
- Feedback link for: diagnostics module operating parameters (temperature, voltages and current); reading LED parameter measurement for LED-to-LED color calibrations; reading luminous sensor value for automatic screen brightness control
- Audio IN/OUT and translate audio packets over Fibre Optic
- On-board TFT control monitor with touch screen (frame image and ARM9 share)
- Distance between screen devices - 500 m tactical multi-mode fibre, 10 km single-mode fibre



SPECIFICATIONS		
Chassis	Motherboard MBE-021 + up to 4 internal expansion cards in 2RU, depth 220 mm	
Front panel	1 x TFT control monitor with touch screen 1 x System keyboard control 1 x MicroSD system memory card 1 x 3,5 mm mini-jack audio monitoring	
Rear panel	Video input	1 x BNC for external analog sync 4 x BNC Composite video standard PAL, NTSC (only for internal expansion cards) 2 x S-Video component video PAL, NTSC (only for internal expansion cards) 1 x D-Sub 15, VGA resolution up to 1280 x 1024 x 75 Hz, 8 bit/px color depth 2 x BNC (switched), HD/SD-SDI, standart support SMPTE 292M, SMPTE 344M, SMPTE-259M (only for internal expansion cards) 1 x HDMI 1.2 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 24 bit/px color depth, 165 MHz TMDS clock freq.
	Video output	1 x HDMI 1.2* resolution 1280 x 1024, 1440 x 900, 1680 x 1050 at 50/60 Hz, 1920 x 1200 x 50 Hz, 8 bit color depth 2 x LC-LC 2,25 Gbit multimode fiber optic connector for screen link, 2,33 MPx max frame out**, 24, 30 bit/px color depth
	Audio input	1 x RCA S/PDIF 1 x TOSLINK S/PDIF 4 x XLR - 2 channel stereo balanced 4 x RCA - 2 channel stereo SDI embedded audio (only for internal expansion cards) HDMI embedded audio
	Audio output	1 x RCA S/PDIF 1 x TOSLINK S/PDIF Embedded in otuput optical system interface
	Control interface	1 x RJ-45 Ethernet 1 x Mini USB 2.0 type B 1 x ExPCI 1 x 5-pin XLR DMX512
eSDV-070 card		
Rear panel	Video input	1 x HDMI 1.2 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 24 bit/px color depth, 165 MHz TMDS clock 1 x D-Sub 15, VGA resolution up to 1280 x 1024 x 75 Hz, YPbPr resolution up to 1280 x 720 at 50/60 Hz 8 bit/px color depth HD/SD-SDI, standart support SMPTE 292M, SMPTE 344M, SMPTE-259M (connection from motherboard) Up to 4 composite, 2 component video PAL, NTSC (connection from motherboard)
eHDV-071 card		
Rear panel	Video input	1 x HDMI 1.2 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 24 bit/px color depth, 165 MHz TMDS clock 1 x DFP, YPbPr up to 1080i 8, 10 bit/px color depth HD/SD-SDI, standart support SMPTE 292M, SMPTE 344M, SMPTE-259M (connection from motherboard) Up to 4 composite, 2 component video standard PAL, NTSC (connection from motherboard)
hsPCS-094 card		
Rear panel	Video input	1 x HDMI 1.3 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 24, 30 bit/px color depth, 225 MHz TMDS clock 1 x BNC 3G/HD/SD-SDI, standart support SMPTE-424M, SMPTE 292M, SMPTE 344M, SMPTE-259M 1 x DFP, YPbPr up to 1080i 8, 10 bit/px color depth (optional connector) HD/SD-SDI, standart support SMPTE 292M, SMPTE 344M, SMPTE-259M (connection from motherboard) Up to 4 composite, 2 component video standard PAL, NTSC (connection from motherboard)
	Video output	1 x BNC 3G/HD/SD-SDI, standart support SMPTE-424M, SMPTE 292M, SMPTE 344M, SMPTE-259M

POWER SUPPLY	DIMENSION (LXWXH)	WEIGHT	OPERATING TEMPERATURE	STORAGE TEMPERATURE
110-240 V AC 50/60 Hz, 90 W max.	44x22.5x8.8	4,065 Kg	0 °C (32 °F) to 40 °C (104 °F)	-10 °C (14 °F) to 50 °C (122 °F)

*HDCP optional

**table «Output frame»

Screen frame rate	OUTPUT FRAME			
	Color depth			
	8 bit	10 bit	10 bit	10 bit
	Clone	Double	Double	HDMI+FO
50 Hz	1,56 MPx	1,2 MPx	2,33 MPx	2,2 MPx
60 Hz	1,3 MPx	1,0 MPx	1,94 MPx	1,68 MPx
75 Hz	1,04 MPx	0,8 MPx	1,55 MPx	-
100 Hz	0,78 MPx	0,6 MPx	1,16 MPx	-
120 Hz	0,65 MPx	0,5 MPx	0,96 MPx	-